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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,784	08/31/2001	Frank Grant	MPZ-100-A	1041

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EXAMINER

NILAND, PATRICK DENNIS

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,784

Applicant(s)

GRANT, FRANK

Examiner

Patrick D. Niland

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/9/04 & 5/10/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1714

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submissions filed on 6/9/04 and 5/10/04 have been entered.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-35 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed "isocyanate derivatives thereof", does not reasonably provide enablement for all of the things falling within the scope of the claim terminology "isocyanate derivatives thereof" as the term would be understood by the ordinary skilled artisan. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

A. The instant claims recite "isocyanate derivatives thereof". The "thiocyanate derivatives thereof" and the "isothiocyanate derivatives thereof" previously pending and

Art Unit: 1714

currently pending in claim 36 were interpreted as though "thereof" referred to the polyurethanes and polyureas and such that the "derivatives" were those polymers in which the NCO group which formed the urea or urethane groups was replaced by the claimed thiocyanate or isothiocyanate analogue group in the polymer. While polyurethanes and polyureas can be thought of as "derivatives" of isocyanates, the instant specification does not disclose nor enable any other "isocyanate derivatives thereof". A polyamine can be made by reacting polyisocyanate with water and driving off the carbon dioxide. This is therefore a derivative of an isocyanate. The resulting derivative can be reacted with polycarboxylic acid to give a polyamide. This is not disclosed but it is encompassed by the instant claim language. There are an infinite number of derivations of isocyanates. None of these are described nor enabled by the instant specification. The ordinary skilled artisan could therefore not make and use the full scope of the instant claims because they are not fully enabled by the instant specification.

5. Claims 1-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The instant claims recite "isocyanate derivatives thereof". The "thiocyanate derivatives thereof" and the "isothiocyanate derivatives thereof" previously pending and currently pending in claim 36 were interpreted as though "thereof" referred to the polyurethanes and polyureas and such that the "derivatives" were those polymers in which the NCO group which formed the urea or urethane groups was replaced by the

Art Unit: 1714

claimed thiocyanate or isothiocyanate analogue group in the polymer. While polyurethanes and polyureas can be thought of as "derivatives" of isocyanates, the instant specification does not disclose nor enable any other "isocyanate derivatives thereof". A polyamine can be made by reacting polyisocyanate with water and driving off the carbon dioxide. This is therefore a derivative of an isocyanate. The resulting derivative can be reacted with polycarboxylic acid to give a polyamide. This is not disclosed but it is encompassed by the instant claim language. There are an infinite number of derivations of isocyanates. None of these are described nor enabled by the instant specification. It is therefore unclear what "isocyanate derivatives thereof" is intended to encompass because the instant specification does not adequately describe "isocyanate derivatives thereof" so that the metes and bounds of the invention can be determined.

B. It is unclear what is meant by "includes" in the instantly claimed group of thermoplastic materials of claim 20, the sizing compounds of claim 36, and the fibers of claim 38. This is not proper Markush group language.

Alternative Limitations

See MPEP 2173.05(h)

1. MARKUSH GROUPS

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites

Art Unit: 1714

members as being selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925).

6. The instant claims are allowable over the prior art considered by the examiner for the reasons already of record.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Niland whose telephone number is (571) 272-1121. The examiner can normally be reached on Monday through Thursday from 10 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

pn

July 8, 2004



Patrick Niland
Primary Examiner
Art Unit 1714